

II. *New or Little-known Exotic Tipulidae* (Diptera).  
By Prof. CHARLES P. ALEXANDER, F.E.S.

[Read October 19th, 1921.]

DURING the course of the writer's studies on the crane-flies of tropical America, a large number of undescribed species were discovered, some of which are discussed in the present paper. The material studied was received from several sources, the more important of which are as follows: British Museum of Natural History, through the kindness of Mr. Edwards; Hungarian Museum, through Dr. Kertész; and the Vienna Museum, through Dr. Zerny. The latter collections were of especial importance in that they contained the type specimens of many species described by Wiedemann, Schiner and Loew. Some of the species of the genus *Eriocera* described by Wiedemann and Schiner are re-described from these types. The location of the types of the novelties discussed herein is mentioned in connection with each species. The writer would express his thanks to Mr. Edwards, Dr. Kertész and Dr. Zerny for the privilege of examining these important collections of Neotropical Tipulidae.

*Geranomyia* (*Geranomyia*) *lacteitarsis*, sp. n.

Head grey; mesonotum shiny, dark brown, the praescutum paler medially; pleura yellow with a very broad and conspicuous dark brown longitudinal stripe; legs pale brown, the posterior tarsi cream-colour; posterior metatarsi flattened; wings strongly infumed, the costal, subcostal, and radial cells with subhyaline centres; cell 1st *R*<sub>1</sub> very wide at base; abdominal tergites dark brown, sternites light yellow, variegated with brown.

*Male*.—Length (excluding the rostrum) 6·8 mm.; wing 6·4 mm.; rostrum alone 3·9 mm.

Rostrum elongate, exceeding the combined head and thorax, dark brownish black, paler basally; palpi brown. Antennal scape obscure testaceous yellow, flagellum dark brown; flagellar segments elongate-cylindrical. Vertex between the eyes very narrow, reduced to a capillary strip; head dark, pruinose, the anterior part of vertex more yellowish.

TRANS. ENT. SOC. LOND. 1922.—PARTS I, II. (JULY)



Mesonotal praescutum shiny with faint metallic reflexions, the median area back to the suture pale; lateral stripes dark brown, confluent with the dark-brown remainder of the mesonotum; the pale colour of the anterior part of the praescutum may be abnormal as this region of the thorax appears to be quite hollowed out inside. Pleura yellow with a very broad and conspicuous dark-brown longitudinal stripe, beginning dorsad of the fore coxa, passing caudad to the abdomen; mesosternum abruptly yellow. Halteres yellow, the knobs conspicuously dark brown. Legs with the coxae and trochanters yellow; femora greenish yellow, the tips indistinctly darkened; tibiae pale brown; tarsi pale brown, the terminal tarsal segments conspicuously paler, on the posterior legs beyond the metatarsi light cream-colour; posterior metatarsi very broad and flattened; claws small, each with five basal teeth which decrease in size basad. Wings broad, subspathulate, the base strongly petiolate; membrane strongly infumed, conspicuously variegated with dark brown and subhyaline; the subhyaline areas include most of cells *C*, *Sc*, *Sc1*, *R* and 1st *R1*; small brown clouds at arculus, at the supernumerary cross-vein in cell *Sc*, at origin of *Rs* and at the stigma, the latter small, oval; the second brown area is confluent behind with the ground-colour; the third area is connected with the ground-colour by a narrow seam along *Rs*; the subhyaline areas thus appear as conspicuous blotches in cells *Sc1*, *R*, and 1st *R1*; base of wing pale; veins dark brown, yellow in the subhyaline areas. Venation: *Sc* rather short, ending about opposite one-fourth the length of *Rs*, *Sc2* not far removed from tip of *Sc1*; *Rs* of moderate length, almost straight but very oblique in position so cell 1st *R1* is greatly widened at its proximal end; *r* at tip of *R1*; *r-m* short, about one-half *m*; cell 1st *M2* elongate-rectangular, gently widened distally, the veins beyond it short, *Cu1* beyond it being about equal to the basal deflection of *Cu1*, the latter at the fork of *M*.

Abdominal tergites dark brown; sternites light yellow, the caudal margins of the segments narrowly darkened.

*Hab.* Colombia.

*Holotype*, ♂, Condoto, September 14, 1913 (*Dr. H. G. F. Spurrell*).

Type in the collection of the British Museum (Natural History).

***Peripheroptera angustifasciata*, sp. n.**

Head black; mesonotal praescutum yellowish pollinose with three broad black stripes; wings yellowish; stigma elongate, dark



brown; conspicuous, broad, brown seams at areculus and along the cord; cell 1st *M*2 closed; basal deflection of *Cu*1 beyond the fork of *M*.

*Female*.—Length 6 mm.; wing 8 mm.

Rostrum and palpi dark brown. Antennae brownish black. Head black.

Pronotum dark brown. Mesonotal praescutum yellowish pollinose with three very broad shiny black stripes that are approximated or subconfluent near the suture; scutum reddish brown, the lobes black; scutellum reddish brown; postnotum black medially. Thoracic pleura with the cephalic half black, the caudal half reddish brown. Halteres brown, the base of the stem yellowish. Legs with the coxae reddish brown; trochanters obscure yellow; remainder of the legs dark brown, the femoral bases brighter. Wings yellowish, the stigma elongate, dark brown; conspicuous, broad, brown seams along the cord, at *Sc*2, the outer end of cell 1st *M*2 and at areculus; cell *Sc*1 proximad of the cord infuscated, becoming paler distally; wing-tip faintly darkened; veins brown. Venation: *Sc*1 ending immediately before the origin of *Rs*, *Sc*2 far from the tip of *Sc*1, *Sc*1 alone about two and one-half times *Rs*; *Rs* arcuated, a little longer than the deflection of *R*4 + 5; *r* elongate, arcuated, at tip of *R*1; inner ends of cells *R*3, *R*5 and 1st *M*2 approximately in alignment; cell 1st *M*2 closed; basal deflection of *Cu*1 immediately beyond the fork of *M*; areculus at about one-fourth the wing-length; cell 2nd *A* long and narrow.

Abdomen brown, the caudal margins of the tergites narrowly obscure yellow; anterior angles of the first abdominal tergite brighter yellow.

*Hab.* Venezuela.

*Holotype*, ♀, from the old collection of the Vienna Museum.

Type in the collection of the Vienna Museum.

### *Peripheroptera glochinoides*, sp. n.

General coloration shiny black; legs with the femora obscure brownish yellow, the tips brown; wings subhyaline, stigma oval, dark brown; *Sc*2 near mid-length of the distance between areculus and origin of *Rs*; *r* nearly twice the length of *R*1 beyond it, about equal to *m*.

*Female*.—Length 7 mm.; wing 7.1 mm.

Rostrum and palpi dark brownish black. Antennae black; basal flagellar segments globular, the terminal segments oval. Head black.

Pronotum black, pollinose laterally. Mesonotum shiny black,



the lateral portions pollinose. Pleura black. Halteres yellow, knobs brown. Legs with the coxae black, sparsely pollinose; trochanters black; femora obscure brownish yellow, the tips passing into dark brown; tibiae brown, the tips darkened; tarsi brown. Wings subhyaline; stigma oval, dark brown; narrow, pale brown seams along the cord and outer end of cell 1st *M*2; cells *C* and *Sc* at the wing-base a little yellowish; veins brown. Venation: *Sc*1 ending opposite the origin of *Rs*, *Sc*2 very far from the tip of *Sc*1, being about mid-distance between areulus and the origin of *Rs*; *Rs* arcuated, nearly four times *r*; *r* near extreme tip of *R*1, on *R*2 + 3 about twice its length beyond the fork of *Rs*; deflection of *R*4 + 5 strongly arcuated; cell 1st *M*2 closed, about as long as vein *Cu*1 beyond it; basal deflection of *Cu*1 immediately before the fork of *M*; anal angle feeble; basal cells of wing not conspicuously developed.

Abdominal tergites dark brownish black, the pleural membranes paler.

*Hab.* Venezuela.

*Holotype*, ♀, 1864 (*Lindig*), "Novara Reise."

Type in the collection of the Vienna Museum.

*Peripheroptera glochinoides* is related to *P. teucholaboides* Alexander (Peru), differing in the colour of the legs and the venational details, such as the position of *Sc*2 and the length and position of the radial cross-vein.

### ***Rhamphidia rubicunda*, sp. n.**

Similar to *R. sanguinolenta* Alexander; wings with *r-m* obliterated by the contact of *R*4 + 5 on *M*1 + 2.

*Male*.—Length about 5.8 mm.; wing 5.8 mm.

Generally similar to *R. sanguinolenta* Alexander (Amazonian Peru), differing as follows:

Thoracic pleura concolorous with the mesonotal praeseutum. Femoral tips very gradually darkened, not abruptly as in *sanguinolenta*. Wings with no brown seam along vein 2nd *A* or the outer end of cell 1st *M*2; seams along the cord less distinct; *r-m* obliterated by the punctiform contact of *R*4 + 5 on *M*1 + 2, the basal deflection of *R*4 + 5 being a little longer, the deflection of *M*1 + 2 much longer than in *sanguinolenta*; cell 1st *M*2 large, irregularly pentagonal; basal deflection of *Cu*1 immediately beyond the fork of *M*.

Abdomen more uniformly reddish.

*Hab.* Paraguay.



*Holotype*, ♂, San Bernardino (*Fiebrig*); on leaves in woods.

Type in the collection of the Vienna Museum.

***Erioptera winthemi*, sp. n.**

General coloration ashy grey, the mesonotal praescutum with three indistinct brown stripes; wings subhyaline with three broad cross-bands that appear as pale washes; cell 1st *M2* open by the atrophy of *m*.

*Female*.—Length about 5.3 mm.; wing 5.7 mm.

Rostrum and palpi brown. Antennae with the first scapal segment dark, the flagellum bright brown. Head ashy grey.

Mesonotal praescutum ashy grey with three more or less confluent, indistinct brown stripes, the broad median stripe evanescent anteriorly; pseudosutural foveae conspicuous, elongate, black; remainder of mesonotum light ashy grey. Pleura ashy grey. Halteres broken. Legs with the coxae brown, pruinose; remainder of the legs dark brown. Wings subhyaline, with three indistinct, broad, brown cross-bands that appear as faint washes; the first of these bands occupies the level of the origin of *Rs*; the second lies immediately beyond the cord, beginning at the stigma, fading out posteriorly; the last band includes the comparatively narrow wing-tip; these brown washes are produced by the increase in size and density of the microtrichiae at these points; veins dark brown. Venation: *Sc2* very faint to almost lacking; *R2* + 3 and deflection of *R4* + 5 subequal; *r* on *R2* a little more than its length beyond the fork; cell 1st *M2* open by the atrophy of *m*; cell *M3* very deep; basal deflection of *Cu1* immediately before the fork of *M*; vein 2nd *A* straight.

Abdomen dark brown, the ovipositor and genital segment reddish horn-colour. Tergal valves of ovipositor powerful, slightly up-curved to the acute tips.

*Hab.* Brazil.

*Holotype*, ♀, Ex the Winthem Collection.

Type in the collection of the Vienna Museum.

***Molophilus quadristylus*, sp. n.**

General coloration dark brown; antennae of the male not elongate; wings with a brown tinge; male hypopygium with four apparent ventral appendages, these elongate, stylet-like, straight or gently sinuous.

*Male*.—Length about 3.3 mm.; wing about 4.3 mm.



Rostrum and palpi brown. Antennae not elongate, pale brown, the flagellar segments with long verticils, those of the basal segments longest. Head brown.

Pronotum brown, the lateral ends of the scutellum obscure yellow. Mesonotal praescutum dark brown, the humeral region obscure yellow; remainder of the mesonotum dark brown. Pleura dark brown, in fresh material probably more or less pruinose. Halteres light brown, paler basally. Legs with the coxae and trochanters obscure yellow; remainder of the legs dark brown, the femoral bases broadly paler. Wings relatively long and narrow, with a brownish tinge; veins darker brown, clothed with long, dark brown trichiae. Venation:  $R2 + 3$  subangulate at  $r$ ; deflection of  $R5$  obliterated or nearly so,  $r-m$  connecting close to the fork.

Abdominal tergites dark brown, the sternites paler, the penultimate tergite brighter. Male hypopygium with four long, almost straight, stylet-like rods, pale in colour, the tips blackened, two on either side of the body together with a third of approximately one-half the length; the stoutest of the styli bears about six setae along its inner margin, the apex on the outer margin with a few appressed teeth; the second stylus is of approximately the same length but smoother and more slender, gently sinuous; the short spine is pale, broad-based, tapering gradually to the acute tip. Penis-guard straight, near the tip bent laterally at a right angle.

*Hab.* Brazil.

*Holotype*, ♂, Ex the Winthem Collection.

*Paratopotypes*, 4 ♂'s.

Type in the collection of the Vienna Museum.

### *Melophilus remiger*, sp. n.

General coloration light brown; antennae of the male not elongate; halteres yellow; wings pale yellowish; male hypopygium with the apparent ventral appendages elongate, the apex dilated into a fimbriate blade.

*Male*.—Length about 4 mm.; wing 5.4 mm.

Rostrum and palpi brown. Antennae pale brown; flagellar segments of the male oval, provided with an erect pale pubescence and a few verticils. Head pale ochreous brown.

Pronotum whitish, the scutellum reddish brown on the sides. Mesonotal praescutum light rusty brown, this produced by the confluence of the usual stripes; lateral margins narrowly whitish; pseudosutural foveae elongate, black, margined with pale; remainder of the mesonotum pale yellowish brown, sparsely pruinose. Pleura



largely destroyed in pinning, apparently pale with a sparse pruinosity. Halteres yellow. Legs with the coxae, trochanters, femora and tibiae yellow, the tips of the latter narrowly darkened; metatarsi brownish yellow, the tips and remainder of the tarsi dark brown. Wings with a yellowish tinge; veins pale brownish yellow, provided with conspicuous pale brown trichiae. Venation as in the subgenus.

Abdominal tergites dark brown, the sternites slightly paler. Male hypopygium with the two apparent ventral appendages of a length and shape unlike any other species known to the writer, each appearing as an elongate, gently curved rod that is slightly expanded into a blade-like portion at its distal end, the proximal margin provided with a series of peg-like spines and long bristles, the extreme tip produced into a powerful spine. The appendages at the tips of the pleurites are powerful, deeply bifid at apex, near the base with a small appressed spine. Penis-guard an elongate, straight, pale rod.

*Hab.* Brazil.

*Holotype*, ♂, Ex the Winthem Collection.

Type in the collection of the Vienna Museum.

#### *Cryptolabis sepulchralis*, sp. n.

General coloration brown; wings with a strong brown suffusion; *Rs* elongate, between three and four times  $R2 + 3$ ; wing-surface, except the base, provided with abundant macrotrichiae.

*Male*.—Length about 3.6 mm.; wing 4.8 mm.

Rostrum and palpi brown. Antennae with the scapal segments dark brown; flagellum brown, the segments with conspicuous verticils. Front and anterior part of vertex yellow, the remainder of the vertex dark brown; vertex between the eyes compressed and elevated, this condition possibly due to drying.

Pronotum yellow. Mesonotal praescutum dark liver-brown with a sparse pollen, the lateral margins narrowly yellowish; remainder of mesonotum dark brown. Pleura dark brown, sparsely pruinose. Halteres dark brown, the extreme base of the stem yellowish. Legs with the fore coxae brown, the other coxae obscure yellow; trochanters testaceous; femora and tibiae brown, the tips dark brown; tarsi dark brown. Wings with a strong brown suffusion, the stigmal region a little darker; veins slightly darker brown. Venation: *Sc* long, *Sc1* ending about opposite mid-length, or beyond, of  $R2 + 3$ ; *Sc2* not apparent; *Rs* unusually long for a member of this genus, between three and four times  $R2 + 3$ ; *r* far from the tip of *R1*, on *R2* about its own length beyond the



fork of  $R2 + 3$ ;  $R2 + 3$  a little longer than the deflection of  $R4 + 5$ ;  $r-m$  slightly longer than the basal deflection of  $R4 + 5$ ; basal deflection of  $Cu1$  inserted immediately before the fork of  $M3$  and  $Cu1$ , the fusion of the latter punctiform. Almost the entire wing-surface is covered with conspicuous macrotrichiae, this including all the cells beyond the cord, all of cells  $R$  and  $M$  except the bases, the distal fourth of cell  $Cu$  and the distal half of the Anal cells.

Abdomen dark brown. Male hypopygium small but not concealed within the body as in other species of the genus.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

*Paratype*, ♂.

Type in the collection of the Vienna Museum.

### **Gonomyia (Progonomyia) dolorosa, sp. n.**

General coloration black; thoracic pleura with a narrow white longitudinal stripe; legs brownish black; wings suffused with brown, the stigma darker brown;  $Sc$  long,  $Sc2$  some distance before the tip of  $Sc1$ ; male hypopygium with three black pleural appendages.

*Male*.—Length about 6 mm.; wing 6.2 mm.

*Female*.—Length about 6.5 mm.; wing 6.3 mm.

Rostrum and palpi black. Antennae black, the distal flagellar segments elongate. Head dark, grey pruinose.

Pronotum broadly black medially, paler laterally. Mesonotum black; humeral region and lateral margins narrowly whitish; a whitish area on the postero-lateral portions of the praescutum; median area of scutum and the scutellum suffused with reddish. Pleura brownish black with a narrow white longitudinal stripe occupying the dorsal margin of the mesosternum, beginning immediately behind the fore coxae passing above the mid-coxae, ending at the posterior coxae. Halteres obscure whitish testaceous, the knobs darker. Legs dark brownish black, the coxae paler terminally. Wings with a strong brownish suffusion, the stigma darker brown, oval; veins dark brown. Venation:  $Sc$  long,  $Sc1$  ending opposite mid-length of  $Rs$ ,  $Sc2$  some distance from the tip of  $Sc1$ ,  $Sc1$  alone a little longer than the basal deflection of  $Cu1$ ;  $r$  faint, inserted at about four-fifths the length of  $R2 + 3$ , the latter a little shorter than the petiole of cell 2nd  $M2$ ; basal deflection of  $Cu1$  a short distance before the fork of  $M$ .

Abdomen black, the tergites very narrowly margined caudally with paler. Male hypopygium black; pleurites triangular, the apex of each produced into a short black point; three dark-coloured



pleural appendages; outer appendage broad-based, gradually narrowed into a curved apical point or hook; intermediate appendage cylindrical, the terminal two-fifths produced into a slender spine that is inserted on the proximal edge of the basal section; inner appendage dark, subrectangular, provided with numerous setae. Penis-guard conspicuously trifid at apex.

*Hab.* Brazil.

*Holotype*, ♂, Young, Iguape (Bras. Exped. Wettstein, 1891).

*Allotopotype*, ♀.

Type in the collection of the Vienna Museum.

### **Gonomyia (Progonomyia) peruviana, sp. n.**

Closely related to *G. velutina* Alexander; mesonotal praescutum grey with three brown stripes; pleura striped longitudinally with yellow; wings subhyaline, sparsely spotted with brownish grey; *Sc*1 ending opposite mid-length of the long sector; male hypopygium with the intermediate appendage a long, straight, chitinised rod that tapers to the acute point, before the middle of its length with a small, acute, lateral point.

*Male*.—Length about 5.5 mm.; wing, 6.3 mm.

Rostrum and palpi dark brown. Antennae moderately elongated, dark brownish black. Head dark coloured, light grey pruinose.

Pronotum grey, dark brown medially. Mesonotal praescutum light grey with three dark brown stripes, the median stripe broader than the lateral stripes; pseudosutural foveae large and conspicuous. Pleura brownish grey with a broad, longitudinal, light yellow ventral stripe, the mesepimeron similarly coloured. Legs light brown, the tips of the femora slightly darker. Wings subhyaline; stigma oval, pale brown; conspicuous brownish grey clouds arranged as follows: along the cord; at *m*; at the origin of *Rs*; in cell *M* at two-thirds its length; near the base of cell *Cu*1 and near the end of cell 1st *A* at the end of vein 2nd *A*; veins dark brown. Venation: *Sc* long, *Sc*1 ending beyond mid-length of the long *Rs*, *Sc*2 some distance from the tip of *Sc*1, the latter vein alone being a little longer than the basal deflection of *Cu*1; *Rs* long, gently arcuated; *R*2 + 3 a little shorter than *R*2; *r* near two-thirds the length of *R*2 + 3; *R*2 less than one-half *R*3; deflection of *R*4 + 5 arcuated; cell 1st *M*2 open; basal deflection of *Cu*1 about one-half its length before the fork of *M*.

Abdomen dark brown. Male hypopygium with the outer pleural appendage chitinised, curved, the comparatively long apex ending in an acute point; intermediate pleural appendage a very long,



slender, chitinised rod that bears a small, slender spine on the outer face just before mid-length, the long, acute point slightly curved near the tip; inner pleural appendage a subflattened lobe that is slightly arcuate, the proximal face set with setigerous punctures. Penis-guard sparsely trifold at apex.

*Hab.* Peru.

*Holotype*, ♂, Matucana, altitude 7788 feet, April 22, 1913 (*C. H. T. Townsend*).

Type in the collection of the writer.

The type of *G. peruviana* was formerly included in the type-material of *G. velutina* as a paratype, and is the species that is figured in the original description of the latter species (*Trans. Am. Ent. Soc.*, vol. 42, pl. 2, fig. 9; 1916; true *velutina* is shown in fig. 10). The two species differ in the details of structure of the male hypopygium.

### **Gonomyia (Progonomyia) serena, sp. n.**

General coloration yellowish buff; mesonotal praescutum with three brown stripes; head grey; wings with a faint yellowish tinge, stigma subcircular, pale brown; *Sc*2 lying before the origin of *Rs*; intermediate pleural appendages of the male hypopygium at near mid-length dilated into a collar which is produced into a slender, cylindrical rod.

*Male*.—Length about 6 mm.; wing 6.6 mm.

*Female*.—Length about 6.5 mm.; wing 6.8 mm.

Rostrum obscure brownish yellow; palpi dark brown. Antennae dark brown throughout. Head grey.

Mesonotal praescutum yellowish buff with three conspicuous brown stripes, the median stripe broadest, complete; scutal lobes brown, median area pale; scutellum obscure yellow with a narrow, brown, longitudinal line on either side of the median vitta; postnotum injured in type. Pleura brownish plumbeous with a conspicuous, ventral, whitish longitudinal stripe as usual in the subgenus. Halteres pale, knobs darker brown. Legs with the coxae pale, fore and middle coxae slightly infuscated; trochanters pale; femora, tibiae and metatarsi obscure yellow, the tips narrowly darkened; remainder of tarsi dark brown. Wings with a faint yellowish tinge; stigma subcircular, pale brown; origin of *Rs* and the cord very indistinctly seamed with brown; veins dark brown. Venation: *Sc* short, *Sc*1 ending about opposite one-fourth *Rs*, *Sc*2 lying proximad of the origin of *Rs*; *Sc*1 alone about one-third longer than the basal deflection of *Cu*1; *Rs* angulated and spurred at



origin;  $r$  at two-thirds the rather long  $R2 + 3$ ;  $R2 + 3$  as long as, or longer than, the petiole of cell 2nd  $M2$ , shorter than  $R2$ ; basal deflection of  $R4 + 5$  areuated; basal deflection of  $Cu1$  a short distance before the fork of  $M$ .

Abdominal tergites dark brown; sternites pale brownish yellow. Male hypopygium with three pleural appendages; outer appendage a short, flattened, curved blade, the apex produced into a blackened beak; intermediate appendage complex, with a cylindrical base that is dilated into a collar the outer angle of which is produced into a short, black, spinous lobe, the proximal angle produced into a straight, slender rod that is approximately as long as the base itself but very slender; inner pleural appendage very pale, fleshy, suboval, the proximal face with abundant stout setae. Penis-guard conspicuously trifid at apex. Ovipositor with the valves elongate, horn-coloured.

*Hab.* South America, without closer determination.

*Holotype*, ♂ (Ex the Winthem Collection).

*Allotopotype*, ♀, pinned with the type.

Type in the collection of the Vienna Museum.

### ***Gonomyia (Leiponeura) subfalcifer*, sp. n.**

General coloration grey; scapal segments orange; pleura with two silvery white longitudinal stripes; legs with the femora yellow with a narrow brown subterminal ring; male hypopygium with the outer pleural appendage sickle-shaped and with a single chitinated spine on the proximal face.

*Male*.—Length about 3.8 mm.; wing 4.3 mm.

Rostrum and palpi dark brown. Antennae with the scapal segments obscure orange, the anterior face darker; basal flagellar segments pale, passing into darker brown at the tip of the organ; flagellar segments with long verticils. Head whitish, the centre of the vertex dark brown.

Pronotum pale, dark brown medially. Mesonotal praescutum brown, the median area slightly darker brown, the lateral margins broadly pruinose; scutum pruinose, the lobes brown; scutellum pruinose, the caudal margin pale; postnotum light grey pruinose. Pleura dark brown, grey pruinose, with two conspicuous silvery white longitudinal stripes, the ventral stripe wider and more clearly defined than the dorsal stripe, the dark stripe between very narrow but distinct; dorso-pleural membrane obscure brownish yellow. Halteres brownish yellow, the knobs broken. Legs with the coxae obscure yellow, dark brown basally; trochanters yellow; only the middle legs remain; femora yellow with a narrow brown



subterminal ring; tibiae yellow, the tips conspicuously blackened; metatarsi brown, the tips and remainder of the tarsi dark brownish black. Wings with a greyish yellow tinge; stigma small, circular, dark brown; veins brown. Venation: *Sc* short, *Sc1* terminating a distance before the origin of *Rs* that is longer than *Rs* alone; basal deflection of *Cu1* in alignment with *r-m* and on *M* at or before the fork.

Abdomen dark brown, the caudal margins of the segments narrowly white, less distinct on the sternites. Male hypopygium very much as in *G. (L.) falcifer* Alex. (Amazonian Peru), but the outer pleural appendage with but a single subbasal spine, this latter with about four appressed teeth on the proximal face.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

Type in the collection of the Vienna Museum.

### ***Gnophomyia funebris*, sp. n.**

General coloration black; flagellar segments feebly subserrate; legs and halteres black; wings with a strong brown tinge, the median half slightly paler; abundant macrotrichiae in the cells beyond the cord; *Sc1* long.

*Male*.—Length about 9 mm.; wing 8.4 mm.

Rostrum and palpi black. Antennae black; intermediate flagellar segments narrow at base, the inner face at apex a little produced to give the organ a subserrate appearance. Head black.

Thorax black. Halteres and legs black. Wings with a strong brownish tinge, the middle half a little paler, the wing-base and apex being a little darkened; conspicuous macrotrichiae in cells *Sc1*, 1st and 2nd *R1*, *R2*, *R3*, *R5*, 1st *M2*, 2nd *M2*, *M3*, *Cu1* and the ends of *Cu* and 1st *A*. Venation: *Sc1* ending about opposite one-third the length of *R2 + 3*, *Sc2* some distance from the tip of *Sc1*, the latter alone about two-thirds the basal deflection of *Cu1*; *Rs* elongate, almost straight; *R2 + 3* about equal to the basal deflection of *Cu1*; *r* on *R2 + 3* immediately before its fork; basal deflection of *R4 + 5* angulate; *r-m* oblique; proximal end of cell 1st *M2* pale; basal deflection of *Cu1* at about one-fifth the length of cell 1st *M2*.

Abdomen brownish black throughout. Male hypopygium of the type of *G. luctuosa* O.S.; pleurites stout, the outer lateral angle produced caudad and slightly proximad into a conspicuous digitiform lobe that is narrowed to the blunt apex. There appears to be but a single pleural appendage, this a little shorter than the



terminal lobe, rather stout, terminating in a short, acute spine that is placed laterally. Penis-guard rather stout, the extreme tip decurved into a short point.

*Hab.* Brazil.

*Holotype*, ♂, Bahia (*Fruhstorfer*).

Type in the collection of the Vienna Museum.

### *Gnophomyia melancholica*, sp. n.

General coloration black; legs and halteres black; wings with a pale brown tinge, cells *C* and *Sc* slightly darker; stigma small, dark brown; distal cells of wing with comparatively sparse macrotrichiae; male hypopygium with a single, very complex pleural appendage that is divided into three arms.

*Male*.—Length about 8 mm.; wing 8.5 mm.

Rostrum and palpi black. Antennal scape black, the flagellar segments broken. Head black.

Thorax black. Halteres and legs black. Wings with a pale brownish tinge, cells *C* and *Sc* slightly darker brown; stigma comparatively small, dark brown; veins dark brown; conspicuous macrotrichiae in cells *Sc*1, 1st and 2nd *R*1, *R*2, *R*3, *R*5, 1st *M*2, 2nd *M*2, *M*3 and the outer end of cell *Cu*1; the macrotrichiae are confined to the centres and distal ends of the cells; no macrotrichiae in cells *Cu* or 1st *A*. Venation: *Sc*2 close to the tip of *Sc*1, the latter only a trifle longer than *Sc*2; *Rs* long, gently arcuated at origin; *R*2 + 3 short, about one-half the basal deflection of *Cu*1; *r* on *R*2 + 3 before the fork; basal deflection of *R*4 + 5 angulated near mid-length; basal deflection of *Cu*1 a short distance beyond the fork of *M*.

Abdomen black. Male hypopygium of the type of *G. luctuosa* O.S. Pleurites short and stout, with the single complex pleural appendage situated on the dorsal-proximal face; apex of each pleurite produced caudad and slightly proximad into a digitiform lobe, the extreme apex suddenly narrowed into a chitinated tip which bears about ten small setae on the proximal or cephalic face. Pleural appendage very complex, divided into three principal arms; dorsal arm appearing as a long, slender, curved spine, directed caudad and thence laterad, tapering gradually to the acute tip, the proximal edge delicately fringed with short, pale hairs; intermediate arm fleshy, more slender at base, the distal end dilated, the apex feebly bifid, the proximal face with abundant, long, yellow, erect setae; ventral arm a slender chitinated rod that bears a conspicuous chitinated spine on the lateral face some distance back



from the apex. Penis-guard comparatively small, triangular in outline, the small tip decurved.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

Type in the collection of the Vienna Museum.

**Gnophomyia pammelas, sp. n.**

General coloration deep velvety black; wings black, the centre of the disc noticeably paler; membrane beyond the cord with abundant macrotrichiae; *Sc1* longer than the basal deflection of *Cu1*.

*Female*.—Length 9 mm.; wing 8.6 mm.

Rostrum and palpi black. Antennae black, the flagellar segments oval-cylindrical. Head black.

Thorax velvety black. Halteres and legs black. Wings black, the centre of the disc noticeably paler, this including most of cell 1st *R1*, the outer halves of cells *R* and *M*, the extreme bases of cells *R3* and *R5* and most of cell 1st *M2*; cells *C* and *Sc* black; veins black; abundant macrotrichiae in the cells beyond the cord and the ends of cells *Cu* and 1st *A*. Venation: *Sc1* extending to opposite *r*; *Sc2* far from the tip of *Sc1*, the latter alone about one-half longer than the basal deflection of *Cu1*; *r* on *R2* + 3 at about two-thirds the length of the vein; cell 1st *M2* relatively small, pentagonal, slightly widened distally; basal deflection of *Cu1* immediately beyond the fork of *M*.

Abdomen black, including the ovipositor.

*Hab.* Paraguay.

*Holotype*, ♀, Trinidad, Asuncion, December 1920 (*F. Schade*).

Type in the collection of the writer.

**Paratropesa amoena, sp. n.**

General coloration purplish black; a narrow, transverse, yellow line on the pleura extending from the wing-root to the middle coxa; wings subhyaline with three conspicuous, dark brown cross-bands; cell 1st *M2* closed, very long and narrow.

Sex (?).—Wing 6 mm.

Rostrum and palpi brown. Antennae with the scapal segments obscure yellow; flagellum broken. Head purplish brown, the front and inner margin of the eyes yellowish.

Pronotum yellow. Mesonotal praescutum black with purplish



reflexions, the humeral region narrowly obscure yellow; a small yellow spot above the wing-root; scutum destroyed by the pin; scutellum and postnotum dark. Pleura black with purplish reflexions; a conspicuous yellow cross-band extending from the wing-root to the mid-coxa. Halteres broken. Legs with the coxae and trochanters yellow; remainder of the legs broken. Wings subhyaline with three conspicuous, dark brown cross-bands, arranged as follows: the first in the bases of cells *R*, *M* and *Cu* and as a spot in cell 1st *A*; second band extending from the tip of *R*1 along the cord, this band broadest anteriorly, gradually narrowed posteriorly but wide and conspicuous for its entire length; terminal band occupying wing-tip, including cell *R*2, distal half of *R*3, a little less than the distal half of *R*5, most of 2nd *M*2 and the distal half of *M*3; cells *C* and *Sc* dark brown; veins dark brown. Venation: *Sc* ending a short distance beyond the origin of *Rs*; *Rs* very strongly arcuated; *r* at tip of *R*1 and on *R*2 + 3 a short distance beyond the fork of *Rs*; *R*2 + 3 longer than *R*3; *R*2 short, subperpendicular; cells 1st *M*2 very long and narrow, proximal end narrow, gradually widening distally, longer than the veins issuing from it; *m* about one-third shorter than the outer deflection of *M*3; basal deflection of *Cu*1 at the fork of *M*.

Abdomen broken,

*Hab.* Venezuela.

*Holotype*, Sex (?), "Kad.," August 1857.

Type in the collection of the Vienna Museum.

*Paratropesa amoena* differs from *P. fasciolaris* (Wiedemann) in the closed cell 1st *M*2. It is very distinct from all described species of the genus.

The type bears a label in Osten Sacken's writing: "Flügelgeäder von *Limnobia fasciolaris* W. und deshalb vielleicht nov. gen."

### *Toxorhina atripes*, sp. n.

General coloration dark brown, the front and thoracic pleura silvery pruinose; legs brownish black; wings with a faint dusky tinge, most intense near the wing-apex; *Sc*1 ending about opposite one-fourth the length of *Rs*; basal deflection of *Cu*1 at or just beyond the fork of *M*.

*Female*.—Length (excluding the rostrum) 4.8 mm.; wing 4 mm.

Rostrum dark brown, if bent backward extending to about mid-length of the abdomen. Antennae dark brown. Front and anterior part of vertex silvery grey; remainder of head dark brown.

Mesonotum dark brown, unmarked. Pleura dark brown, con-



spicuously light grey pruinose. Halteres dark brown. Legs with the coxae testaceous, the basal half of each brownish grey; trochanters dark brown; remainder of legs brownish black. Wings with a faint dusky tinge, a little more saturated near the wing-tip; veins brownish black. Venation: *Sc*<sub>1</sub> ending about opposite one-fourth the length of *Rs*; *R*<sub>1</sub> ending about opposite three-fourths the length of *Rs*; *Rs* long, straight, about two and one-half times the basal deflection of *Cu*<sub>1</sub>; cell 1st *M*<sub>2</sub> closed; outer deflection of *M*<sub>3</sub> from one-third to nearly twice the length of *m*; basal deflection of *Cu*<sub>1</sub> at or just beyond the fork of *M*; basal approximation of 1st *A* and *Cu* slight.

Abdominal tergites black, the sternites more brownish. Ovipositor with the valves long and slender.

*Hab.* Colombia.

*Holotype*, ♀, Condoto, June 27, 1913 (*Dr. H. G. F. Spurrell*).

Type in the collection of the British Museum (Natural History).

#### *Ceratocheilus niveitarsis*, sp. n.

Head dark brown, the front and anterior part of the vertex silvery grey; mesonotum dark clove-brown, the humeral regions of the praescutum abruptly citron-yellow; thoracic pleura yellow, the mesosternum and mesepisternum with a dark brown blotch; legs black, the tarsi largely snowy white; wings with a strong brown tinge; abdomen brown, variegated with obscure yellow; hypopygium yellow.

*Male*.—Length (excluding the rostrum) 5.5 mm.; wing 6 mm.; rostrum alone 3.6 mm.

Rostrum elongate, black, nearly one-half longer than the combined head and thorax. Antennae brownish black throughout, with twelve segments, the terminal segment minute; all flagellar segments with verticils, these becoming very long on the four sub-terminal segments; the second apparent flagellar segment is indistinctly fused with the first flagellar segment; flagellar segments three and four are deeply incised beneath to form two apparent segments, so the antenna may be interpreted as having fifteen segments, the three basal pairs of flagellar segments being narrowly connected on the dorsal side only. Front and anterior part of vertex and a broad margin around the eyes light silvery grey; remainder of vertex and occiput abruptly dark brown.

Pronotum dark brown above, obscure yellow laterally. Mesonotal praescutum with three confluent dark clove-brown stripes,



the humeral region and lateral margins broadly and conspicuously obscure citron-yellow; remainder of the mesonotum dark clove-brown, the median area of the scutum a little paler. Pleura yellow with a conspicuous purplish brown blotch occupying the sides of the mesosternum and the mesepisternum; mid-ventral area of mesosternum pale. Halteres obscure yellow, the knobs broken. Legs with the coxae yellow; remainder of the legs dark brownish black, the tips of the metatarsi and tarsal segments two to four snowy white, becoming more yellowish apically; terminal tarsal segment dark brown; setae on legs profoundly bifid as in genus. Wings with a strong brownish tinge; stigma not darkened; veins dark brown. Venation: *Sc* long, *Sc1* ending beyond mid-length of *Rs*, the extreme tip atrophied; *Rs* moderately elongated, arcuated at origin, in direct alignment with the deflection of  $R4 + 5$ ;  $R2 + 3$  arising from the end of *Rs* at an angle, diverging from  $R4 + 5$  toward the wing-margin; cell 1st *M2* closed; *m* short, from one-third to one-fourth the outer deflection of *M3*; basal deflection of *Cu1* a short distance beyond the fork of *M*, the distance about equal to *m*; *Cu2* only a little more than one-half the basal deflection of *Cu1*.

Abdominal tergites brown, the caudal margins medially and the basal half of the lateral margins brownish black; posterior half of lateral margins brightened, sparsely pruinose; on the subterminal segments the coloration is largely black, producing a subterminal ring; sternites with the basal half of each segment dark brownish black, the posterior margins broadly yellowish; hypopygium yellow. Male hypopygium with the pleural appendages appearing to arise near the base of the inner face of the pleurite, bent dorsad and thence caudad, lying parallel, their tips divergent.

*Hab.* Colombia.

*Holotype*, ♂, Boca del Condoto, January 20, 1915 (*Dr. H. G. F. Spurrell*).

Type in the collection of the British Museum (Natural History).

### *Polymera tibialis*, sp. n.

General coloration brown; mesonotal praescutum with four narrow brown stripes; antennae of the male elongate, annulate; thoracic pleura with a broad, dark brown stripe; legs brown, tips of the femora and the tibiae and tarsi white; wings yellowish brown, the cord narrowly seamed with darker brown.

*Male*.—Length 6.3 mm.; wing 7.2 mm.; antenna about 10 mm.

Rostrum and palpi light brown. Antennae of the male very



elongate, one-half longer than the body; flagellar segments binodose, dark brown, the base and apex of the segments white to give the organ an annulated appearance; scape and first flagellar segment pale brown. Head brown.

Mesonotal praeseutum light brownish grey with four narrow brown stripes; scutum light brown, the lobes with a narrow brown line, converging behind to the scutellum which is dark brown, paler posteriorly; postnotum brown, sparsely pruinose. Pleura obscure yellow with a broad, dark brown, pleural stripe, clearly delimited ventrally, more diffuse dorsally, extending about to the wing-root; mesosternum dark brown medially. Halteres obscure yellow, the knobs dark brown. Legs with the coxae yellowish testaceous, the fore coxa darkened basally; trochanters testaceous; femora brown, paler basally, the tips conspicuously white; tibiae white with a faint tinge of darker; tarsi of middle and hind legs white; fore legs broken. Wings with a strong yellowish brown tinge; *r* and the cord narrowly seamed with darker brown; veins brown. Venation: *r* on *R*<sub>1</sub> far from the tip, the distal section of *R*<sub>1</sub> a little longer than the petiole of cell *M*<sub>3</sub>; *R*<sub>2</sub> + 3 about one-half longer than the deflection of *R*<sub>4</sub> + 5; cell *M*<sub>1</sub> small.

Abdominal tergites dark brown, the sternites slightly paler.

*Hab.* Brazil.

*Holotype*, ♂, Espirito Santo (Ex Coll. Fruhstorfer).

Type in the collection of the Vienna Museum.

*Polymeratibialis* is readily distinguished from all described species of the genus by the almost uniformly white tibiae.

#### *Atarba fiebrigi*, sp. n.

General coloration obscure yellow; antennae of the male moderately long, flagellar segments bicolorous; extreme tips of the femora darkened; wings with a faint yellowish tinge, the stigma barely indicated; *Sc*<sub>2</sub> some distance from the tip of *Sc*<sub>1</sub>.

*Male*.—Length about 5.8 mm.; wing 6.8 mm.

*Female*.—Length about 6.4 mm.; wing 7 mm.

Rostrum obscure yellow; palpi yellowish brown. Antennae of male moderately elongate, if bent backward extending to beyond the base of the abdomen; scapal segments obscure yellow; basal flagellar segments bicolorous, the basal half obscure yellow, the distal half black, the amount of yellow decreasing on the outer segments, those toward the tip of the organ being uniformly blackened. Head yellowish grey.

Mesonotum obscure yellow without distinct markings, the base of the postnotum a little darker. Pleura obscure yellow. Halteres



yellow, the knobs brown. Legs obscure yellow, the extreme tips of the femora and the terminal tarsal segments darkened; tibial spurs present. Wings with a faint yellowish tinge; stigma barely indicated; veins pale brownish yellow. Venation: *Sc1* ending opposite the origin of *Rs*, *Sc2* some distance from the tip of *Sc1*, the latter alone about one-half longer than  $r-m$ ; *Rs* rather short, gently arcuated;  $R2 + 3$  straight; cell 1st *M2* relatively small; basal deflection of *Cu1* approximately at the fork of *M*, in some slightly basad of, in others slightly beyond this fork.

Abdominal tergites brown, the sternites obscure yellow; a subterminal brownish black ring in the male. Male hypopygium as in the genus. Penis-guard conspicuous, longer than the pleurites, moderately stout, the tip curved. Outer pleural appendage with appressed teeth, the apex produced into a spine. Ninth tergite small, the margin with a very broad V-shaped notch, the lateral angles appearing as divergent horns.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

*Allotopotype*, ♀, pinned with the type.

Type in the collection of the Vienna Museum.

#### *Atarba punctiscuta*, sp. n.

General coloration shiny yellow; antennae of the male moderately elongate; antennal flagellum almost uniformly dark brown; mesonotal praescutum with a narrow, dark brown, median line; each scutal lobe with two dark brown blotches; femora with a narrow brown subterminal ring; wings yellow, the cord narrowly seamed with brown; abdomen obscure yellow with a conspicuous black subterminal ring.

*Male*.—Length 5.3 mm.; wing 5.5 mm.

Rostrum obscure yellow; palpi brown. Antennae of moderate length, if bent backward extending to just beyond the base of the abdomen; scapal segments yellow, flagellum dark brown, only the extreme bases of flagellar segments one to three indistinctly brightened. Head yellow; centre of the vertex slightly darkened.

Mesonotal praescutum shiny yellow with a conspicuous dark-brown median stripe, broadest anteriorly, becoming obliterated at the suture; scutum yellow, each lobe with a large, dark-brown blotch occupying the latero-cephalic third and a smaller similar area on the proximo-caudal third; the pin passes through this part of the body and it cannot be determined whether these two latter areas are confluent across the median line; scutellum testaceous yellow; postnotum with the median sclerite brown, the lateral



sclerites yellow. Pleura yellow. Halteres yellow, the knobs brown. Legs with the coxae and trochanters yellow; femora yellow with a narrow brown subterminal ring; tibiae yellow, the extreme base darkened; terminal tarsal segments dark brown; tibial spurs present. Wings with a strong yellowish tinge; stigma darker yellow, oval; very narrow dark brown seams at the origin of *Rs*, along the cord and outer end of cell 1st *M2*; veins yellow, dark brown in the infuscated areas. Venation: *Sc1* ending a short distance beyond the origin of *Rs*, *Sc2* a short distance before this origin; *Rs* short, arcuated at origin, about one-half longer than the deflection of *R4* + 5; *R2* + 3 almost straight; veins *R2* + 3 and *R4* + 5 slightly divergent; cell 1st *M2* closed; *m* shorter than *r-m*; basal deflection of *Cu1* at or immediately before the fork of *M*.

Abdomen obscure yellow, the tergites indistinctly marked with darker; a conspicuous black subterminal ring on segments seven and eight; hypopygium light yellow. Male hypopygium with the pleural appendages as in the genus, the teeth of the outer appendage very long and outspreading. Gonapophyses appearing as two elongate, filiform rods, parallel at base, the apices deflexed and divergent. Ninth tergite appearing as a narrow plate, the apex with a deep V-shaped notch, the lateral lobes terminating in laterally directed points.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

Type in the collection of the Vienna Museum.

### *Eriocera caminaria* (Wiedemann).

1828. *Limnobia caminaria* Wiedemann; Aussereur. zweifl. Ins., Th. I, p. 31.

The true status of *Eriocera caminaria* has been in doubt since Schiner re-described the species in the "Reise Novara," p. 42. The holotype of *caminaria* and the material discussed by Schiner are before me, and it is readily apparent that Schiner's species has little in common with true *caminaria*. It is described elsewhere in this paper as a new species, *E. perlaeta*. The following re-description of Wiedemann's type is here given to supplement the rather brief original description.

The antennae of the type are lacking; a single leg persists (a fore leg, broken at the metatarsus).

*Female*.—Length about 10 mm.; wing 10.2 mm.

Fore leg, femur, 5.4 mm.; tibia, 6.3 mm.

Head entirely orange, the ventral surface only a little darker than



the vertex. Vertical tubercle broad and conspicuous but not bifid. Antennae with the scape obscure yellow; flagellum broken.

The thorax of the century-old type now appears almost uniformly dark brown but the three praescutal stripes are indicated. Halteres dark brown. Only the fore-leg remains; this is very short for the size of the fly, dark brown throughout, there being no indication of paler on either segment. Wings brown with a comparatively narrow white cross-band that lies entirely proximad of the cord, this not including the costal cell and ending immediately before the posterior margin at the end of vein 1st *A*; this band occupies the middle fifth of cell 1st *R*<sub>1</sub> and the ends of cells *R*, *M* and *Cu*; the band is of nearly uniform width for its entire length or slightly narrower in cell 1st *R*<sub>1</sub>; in addition to this band there is a conspicuous whitish blotch in cell *R* before the origin of *Rs*; Anal cells slightly paler than the remainder of the wing-membrane; the costal margin is not brightened anywhere along its length; veins dark brown, paler in the white bands. Venation: *Sc*<sub>1</sub> ending about opposite the fork of *Rs*, *Sc*<sub>2</sub> not far from the tip of *Sc*<sub>1</sub>; *r* about twice its length from the tip of *R*<sub>1</sub> and on *R*<sub>2</sub> a short distance beyond the fork of *R*<sub>2</sub> + 3; cell *M*<sub>1</sub> lacking; basal deflection of *Cu*<sub>1</sub> at about one-third the length of cell 1st *M*<sub>2</sub>; *Cu*<sub>2</sub> a little shorter than the basal deflection of *Cu*<sub>1</sub>.

Abdomen with the basal half of each of the tergites shiny blue-black, the distal half opaque black. Ovipositor with the genital segment obscure reddish yellow; valves slender, dark brown, the tips broken.

*Hab.* Brazil (Ex the Winthem Collection).

***Eriocera perlaeta*, sp. n.**

*Male*.—Length 11·8–12 mm.; wing 10·2–10·8 mm.

*Female*.—Length about 12·5 mm.; wing 10·5 mm.

*Eriocera perlaeta* is the species discussed by Schiner ("Reise Novara," p. 42) as *E. caminaria* (Wiedemann). The material at hand includes not only the specimens upon which Schiner based these observations, but also the type specimen of *E. caminaria*. From a comparison of these specimens it is very evident that Schiner's material represents an undescribed species of the genus. The present species differs from *caminaria* in the following respects:

Legs dark brown, the fore femora with an extensive yellowish area immediately beyond the base; middle and hind femora with a



light yellow ring before the broad tips, on the mid-femora this being very narrow, only about one-third the brown tip; on the hind femora the yellow ring is much broader and very conspicuous, being more than one-half the brown tips; tibiae lighter brown than the femora. Wings very different from those of *E. caminaria*, the pale band at the cord being narrower, entirely traversing the wing and including portions of cells 1st *M*2 and *Cu*1; in *E. caminaria* the band lies entirely before the cord as stated by Wiedemann; an interrupted subbasal whitish band includes a large area in the basal cells immediately before the origin of *Rs* and a larger but less distinct area occupying the basal two-thirds of cell 1st *A*; the cephalic portion of the base of the wing proximad of *h* and arculus conspicuously light yellow. Abdominal tergites three and four with their basal halves pearl-grey, a little broader on the fourth segment; on tergite two this pale coloration is less distinct and occupies only about the basal third of the segment. Genitalia in both sexes orange. In the male, the penis is very long and slender as described by Schiner, a similar condition obtaining in the other members of this group of species.

*Hab.* Colombia and Brazil.

*Holotype*, ♂, Colombia.

*Allotype*, ♀, Brazil.

*Paratypes*, 3 ♂'s, 1 Sex (?), Brazil and Colombia.

Type in the collection of the Vienna Museum.

### *Eriocera latissima*, sp. n.

Schiner determined this species as being *E. longistyla* Alexander (as *erythrocephala* Fabricius, preoccupied). The differences from true *longistyla* are very considerable as indicated herewith:

*Male*.—Length 10 mm.; wing 10·8 mm.

Vertical tubercle higher than usual and with a slight median notch. Mesonotal praescutum brown, darker than the obscure yellow remainder of the mesonotum. Pleura brown, the lateral sclerites of the postnotum conspicuously yellow, this colour encroaching slightly on the mesepimeron. Legs dark brown throughout. Wings dark brown; the wing-band is very broad but incomplete, not including cells *C*, *Sc* or *Cu*; this band lies entirely before the cord and forms a subquadrate area extending from just beyond the origin of *Rs* to the general level of the cord and including portions of cells 1st *R*1, *R* and *M*, and the extreme base of cell *Cu*1; the 1st *Anal* cell is conspicuously pale, only the apex being darkened. The



2nd Anal cell is entirely dark. Venation: Cell 1st *M2* rectangular; basal deflection of *Cu1* a short distance beyond the fork of *M*. Abdomen orange; segments five to seven inclusive black.

What the author considers to be true *longistyla* (since it agrees in almost every respect with the brief type descriptions) has been discussed in another paper (*Psyche*, vol. 21, p. 39; 1914).

*Hab.* Venezuela.

*Holotype*, ♂, 1864 (Lindig), "Novara Reise."

Type in the collection of the Vienna Museum.

### *Erioptera taenioptera* (Wiedemann).

1823. *Limnobia taenioptera* Wiedemann; *Aussereur. zweifl. Ins.*, Th. I, pp. 28, 29.

The brief description may be supplemented by the following notes on Wiedemann's type.

The abdomen of the holotype is entirely gone; antennal flagellum and all but a single leg lost. This single leg is glued to the pin.

*Sex* (?).—Wing 16.4 mm. Tibia 18.8 mm.

The entire frons, vertex and dorsum of the occiput orange, the ventral surface of the head brown. Antennae with the first scapal segment orange, the second segment brown; flagellum broken. Vertical tubercle conspicuous, with a very broad and low V-shaped notch.

The entire thorax is dark brownish black, no signs of stripes being apparent in this century-old type. Halteres dark brown. Legs with the coxae and trochanters dark brown; the single leg that is glued to the pin is very remarkable for an *Eriocera*, more resembling certain species of *Trentepohlia* and *Tanytremna*; from its structure, however, there can be little doubt but that it belongs to the insect as described; the femora are apparently yellow with broad black tips; tibia with the basal three-fifths (11 mm.) black, the apical two-fifths (7.8 mm.) white; metatarsus with a little more than the basal half black, the remainder white; second and third tarsal segments white, the terminal segments a little darkened. Wings dark brown with a conspicuous yellow cross-band at the level of the cord, this including the end of cell *C*, intermediate portion of 1st *R1*, bases of cells *R3*, 1st *M2* and *Cu1*, and apices of cells *R* and *M*. As stated by Wiedemann, the Anal cells are a very little paler than the remainder of the wing, but this is not at all conspicuous; veins dark brown, paler in the yellow cross-band. Venation: *Sc1* alone about



equal to  $r-m$ ;  $R1$  beyond  $r$  only a little shorter than the basal deflection of  $Cu1$ ;  $R2$  before  $r$  about twice this cross-vein; cell  $M1$  lacking; basal deflection of  $Cu1$  at about one-third the length of cell  $1st\ M2$ ;  $Cu2$  a little more than one-half of the deflection of  $Cu1$ .

*Hab.* Brazil (Ex the Winthem Collection).

*Eriocera nigrochalybea*, sp. n.

General coloration black with steel-blue reflexions; vertex fiery orange; legs black, the femoral bases yellow; wings dark brown; a conspicuous light yellow cross-band before the cord; base of cell  $R$  and most of cell  $1st\ A$  pale; abdomen brownish black, the hypopygium and base of the second sternite brighter.

*Male*.—Length 12.3 mm.; wing 12 mm.

Rostrum and palpi brown. Antennae short, dark brown, the scapal segments brighter on their ventral faces. Vertex fiery orange, the remainder of the head orange; vertical tubercle relatively high, notched anteriorly.

Mesonotum entirely black with conspicuous steel-blue reflexions. Pleura concolorous, very sparsely pruinose. Halteres dark brown throughout. Legs with the coxae and trochanters brownish black; only a single leg (anterior) remains; this is dark brown with the basal quarter obscure yellow. Wings dark brown; a conspicuous arcuated light yellow band before the cord, beyond cell  $1st\ M2$  swinging distad and including the basal half of cell  $Cu1$ ; this band extends from cell  $1st\ R1$  across the wing, reaching the posterior margin as a mere point at vein  $Cu2$ ; cells  $R3$  and  $R5$  are entirely dark, cell  $1st\ M2$  similar except the extreme proximal angle; cell  $R$  is pale basally, this colour narrowly connected with the yellow band at the cord by a pale streak caudad of the sector; cell  $1st\ A$  is largely pale, only the distal end narrowly darkened; veins dark brown, paler in the yellow areas. Venation:  $Sc1$  ends just beyond the fork of  $Rs$ ,  $Sc2$  rather close to the tip of  $Sc1$ , the latter alone shorter than the deflection of  $R4 + 5$ ;  $r$  on  $R2$  about its own length beyond the fork of  $R2 + 3$ ; basal deflection of  $Cu1$  immediately beyond the fork of  $M$ .

Abdomen dark brownish black with steel-blue reflexions; second sternite obscure yellow on basal half. Male hypopygium small, obscure reddish brown.

The paratype is very similar to the type, but the femoral bases are not brightened.

*Hab.* Brazil.



*Holotype*, ♂.

*Paratype*, a broken specimen.

Type in the collection of the Vienna Museum.

***Erioptera chrysoptera* (Walker).**

1856. *Limnobia chrysoptera* Walker; Ins. Saundersiana, vol. 1, Dipt., p. 438.

At the request of the author, Mr. Edwards has again examined the type of this handsome species in the British Museum collection. The type is now without antennae, legs and ovipositor. The venation and pattern is carefully delineated in a camera lucida drawing sent by Mr. Edwards. This shows *Sc*1 ending slightly beyond mid-length of *R*2 + 3; cell 1st *M*2 irregularly hexagonal, the proximal end a little wider than the distal end; basal deflection of *Cu*1 beyond the fork of *M*, the distance about equal to *m*. Mr. Edwards describes the wings as having the basal three-fourths clear orange-yellow without any dark clouding. The drawing indicates that the apical infuscation is heavier in the radial cells, becoming paler posteriorly.

***Eriocera chrysopteroides*, sp. n.**

Generally similar to *E. chrysoptera*; size larger; general coloration, including the legs, black; wings light yellow, the apical quarter strongly infumed; an ill-defined paler brown cloud in the caudal cells of the wing.

*Female*.—Length about 22–23 mm.; wing, 16–18.8 mm.

*Eriocera chrysopteroides* is apparently closely allied to *E. chrysoptera* (Walker), differing in the following regards:

From Walker's measurements of his species, the present insect is considerably larger. General coloration, including the head, thorax and abdomen, black; the thorax dusted with brown. Legs dark brownish black throughout. Wings light yellow, the apical quarter strongly infumed, the proximal end of this band including all but the extreme base of cell *R*3, all of cells *R*5, 1st *M*2 and *Cu*1; an ill-defined paler brown cloud in the caudal cells of the wing, centring at vein *Cu*, including portions of cells *R*, *M*, *Cu* and 1st *A*. In the paratype, this infuscation is only a little paler than the dark apex and is connected with it; the clear yellow colour includes only cells *C*, *Sc*, the proximal three-quarters of 1st *R*1 and the base of *R*1. Valves of the ovipositor dark brown.

The lateral angles of the pronotal scutum project laterad as conspicuous slender tubercles.



*Hab.* Brazil.

*Holotype*, ♀.

*Paratype*, ♀.

Type in the collection of the Vienna Museum.

*Eriocera pulchripes*, sp. n.

1914. *Eriocera chrysoptera* Alexander; Ent. News, vol. 25, pp. 214, 215; not *E. chrysoptera* (Walker).

In an earlier paper cited above, *Eriocera pulchripes* was determined by the writer as being *E. chrysoptera* (Walker). From notes on the type of the latter made by Mr. Edwards and from a comparison with related species, it is evident that the present form represents a very distinct species of the genus. The insect is described and figured in the paper cited above, the description being added here for completeness.

*Female*.—Length 18.8 mm.; wing 13.6 mm.

Rostrum, palpi, antennae and head very deep black. Thorax black. Halteres short, black. Legs with the coxae and trochanters black; basal portion of femora dark brownish black, this dark base narrowest on the fore-legs, broadest on the hind-legs where it covers almost one-third of the segment, tip of femora black, the median portion bright yellow; tibiae and tarsi very dark brown. Wings bright golden yellow, the Anal cells grey; tip of wing from the cord outward dark brown. Abdomen black.

*Hab.* Bolivia.

*Holotype*, ♀, Coroico.

*Paratopotype*, Sex (?).

Type in the collection of the Hungarian Museum.

*Eriocera tranquilla*, sp. n.

Vertex orange; mesonotal praescutum yellowish grey with three dark brown stripes; thoracic pleura dark brown, this colour including the coxae and trochanters of the legs; wings light brown, sparsely variegated with light yellow, including a narrow transverse band at the cord; abdomen yellow, the first, fifth and sixth segments black.

*Male*.—Length 10.5 mm.; wing 9.8–10.2 mm.

Rostrum and palpi dark brown. Antennae short, light brownish yellow throughout. Vertex orange, the ventral surface of head passing into dark brown.



Mesonotal praescutum yellowish grey with three dark brown stripes; remainder of the mesonotum dark brown, the scutal lobes sparsely pruinose. Pleura dark brown. Halteres dark brown, the base of the stem narrowly paler. Legs with the coxae and trochanters dark brown; femora yellow, the tips rather broadly and conspicuously dark brown; the posterior legs show an indication of a pale brown, post-median band; tibiae obscure yellow, the tips rather narrowly darkened; tarsi brown. Wings light brown, sparsely variegated with light yellow; stigma slightly darker brown; a narrow yellow band along the cord, on the cephalic part of the wing lying mostly proximad of the cord, beyond cell 1st *M2* lying a little more on the distal side of the cord in cell *Cu1*; a yellow spot at origin of *Rs*; yellowish seams along *r* and the outer end of cell 1st *M2*; costal and subcostal cells proximad of *h* light yellow; cell 1st *A* pale, only the distal end darkened; veins light brown, more flavous in the yellow areas. Venation: *Sc1* ending opposite the fork of *Rs*; cell 1st *M2* comparatively long and narrow, the proximal end somewhat arcuated; *m* only about one-half the outer deflection of *M3*; basal deflection of *Cu1* at from one-third to one-fourth the length of cell 1st *M2*.

Abdomen with the first tergite dark brownish black; segment two yellow, the extreme base and apex ringed with black; segments three and four yellow, the caudal margins narrowly ringed with dark brown; segments five and six black, forming a subterminal ring; remainder of abdomen, including the hypopygium, obscure orange.

*Hab.* Brazil.

*Holotype*, ♂. The label reads "Brazil (Blumenau) Loth. Hetschko."

*Paratopotype*, ♂.

Type in the collection of the Vienna Museum.

#### *Eriocera schineri*, nom. nov.

1868. *Penthoptera fuliginosa* Schiner; "Reise Novara," p. 42; a species of *Eriocera*, non *E. fuliginosa* Osten Sacken (1859).

The type may be re-described. The condition is good except that there are no posterior and but one middle leg remaining.

*Male*.—Length 12.6 mm.; wing 11.2 mm.

Fore-leg, femur, 6.7 mm.; tibia, 8.1 mm.

Middle leg, femur, 7.7 mm.; tibia, 8 mm.

Rostrum and palpi black. Antennae black, if bent backward



not extending to the wing-basis. Head black; vertical tubercle very inconspicuous.

Mesonotum black, the praescutum faintly blue-black in certain lights. Pleura with a shimmering white pruinosity when viewed obliquely. Halteres dark brown. Legs dark brown; coxae with a conspicuous white pruinosity; fore femora immediately beyond the base with a conspicuous obscure yellow ring that is three or four times as wide as the dark femoral base; on the middle femora this ring is barely indicated, which would lead to the belief that it would be quite obliterated on the posterior femora. Wings with a faint brownish tinge, the costal region more saturated; stigma brown, very diffuse, including the end of cell *Sc*1, 1st *R*1, all of *R*2 and less distinctly the end of cell *R*3; veins brown. Venation: *Sc* long, *Sc*1 ending just beyond the fork of *Rs*, *Sc*2 about twice its length from the tip of *Sc*1; *Rs* long, gently arcuated; ultimate section of *R*1 about equal to  $r - m$ ; basal section of *R*2 about one-half longer than  $r$ ; deflection of  $R4 + 5$  very short; cell *M*1 lacking; cell 1st *M*2 rectangular; basal deflection of *Cu*1 just before mid-length of cell 1st *M*2; *Cu*2 and the basal deflection of *Cu*1 subequal.

Abdominal tergites shiny black; second and third sternites obscure reddish at base; hypopygium black.

The type was collected in Venezuela in 1864 by Lindig. Type in the collection of the Vienna Museum.

### *Eriocera nigra* (Wiedemann).

1828. *Limnobia nigra* Wiedemann; Aussereur. zweifl. Ins., Th. I, p. 27.

The type series is before me. This consists of three males and two females, one of the males being selected as lectotype.

*Male*.—Length 16 mm.; wing 16.5 mm.

*Female*.—Length 22–24 mm.; wing 16.5–20.8 mm.

Rostrum and palpi brownish black. Antennae short, black, if bent backward ending far before the origin of the wing. Vertical tubercle appearing as two, short, slightly diverging cones. Head brownish black, including the tubercles.

Thorax dark brown, the praescutal stripes faintly indicated in some specimens. Halteres and legs brownish black. Wings dark brown, basad of the arculus a very little more yellowish, but this not at all conspicuous; veins brown. Venation: *Sc*1 ending just



before mid-length of  $R2 + 3$ ,  $Sc1$  about equal to  $r - m$ ; basal deflection of  $Cu1$  at about one-fourth the length of cell 1st  $M2$ .

Abdomen dark brownish black.

*Hab.* Brazil (Ex the Winthem Collection).

The females have the centres of cells  $R$ ,  $M$ ,  $Cu$ , *Anal cells*,  $R3$ ,  $R5$  and the medial and cubital cells paler brown and the base of the wing not brightened. I can see no difference between such specimens and the description of *E. tenebrosa* (Walker), which is probably a synonym of *E. nigra*. The pale coloration at the base of the wing is much less conspicuous than would be expected from the description of *E. nigra*.

### *Eriocera myrtea*, sp. n.

General coloration shiny liver-brown; dorsum of head fiery orange; femora yellow, the tips and a broad, post-median ring brown; wings yellow, cell  $Sc$  brighter yellow, the veins very broadly seamed with brown.

*Male*.—Length about 10.5 mm.; wing 10.3 mm.

Rostrum and palpi dark brown. Antennae short, light brown throughout. Dorsum of head fiery orange, the genae and ventral portions of head brown; vertical tubercle rather high, entire.

Pronotum and mesonotum shiny liver-brown, the lateral margins of the praescutum sparsely pollinose. Pleura brown with a sparse pruinosity. Halteres obscure yellow, the knobs dark brown. Legs with the coxae brown, sparsely pruinose; trochanters light brown; femora yellow, the tips rather narrowly dark brown; a less distinct brown ring immediately beyond mid-length of the segment, these two brown rings enclosing a conspicuous yellow, subterminal ring that is approximately as extensive as the brown tip; tibiae light brown, the tips dark brown; tarsi dark brown. Wings with the ground-colour greyish yellow, cell  $Sc$  brighter yellow; all the veins very broadly seamed with brown, restricting the ground-colour to the comparatively narrow centres of the cells; veins dark brown. Venation:  $Sc1$  ending about opposite two-fifths the length of  $R2 + 3$ ;  $Sc1$  about equal to  $m$ ,  $Sc2$  very short; cell 1st  $M2$  comparatively small; basal deflection of  $Cu1$  a short distance beyond the fork of  $M$ .

Abdomen dark liver-brown, only the hypopygium conspicuously orange.

*Hab.* Brazil.

*Holotype*, ♂, Ex the Winthem Collection.

Type in the collection of the Vienna Museum.



*Eriocera melina*, sp. n.

General coloration yellow; head orange; mesonotal praeseutum and seutum marked with light grey; femora brown with a subterminal yellow ring; wings of a saturated yellow, darker beyond the cord, the veins narrowly margined with light yellow; abdomen yellow with a conspicuous brownish black subterminal ring.

*Male*.—Length about 14.5 mm.; wing 12.5 mm.

Rostrum and palpi dark brown. Antennae with the scapal segments fiery orange; flagellum broken. Head entirely orange; vertical tubercle rather high, scarcely notched.

Pronotum brown. Mesonotal praeseutum chestnut-brown with four light grey stripes; seutum light grey; scutellum and postnotum obscure yellow. Pleura brownish yellow, the dorsal pleurites a little darker. Halteres short, yellow, the knobs dark brown. Legs with the coxae and trochanters obscure brownish yellow; only the posterior femora and tibiae remain; femora dark brown, the basal quarter obscure yellow; a conspicuous subterminal yellow ring before the slightly broader brown tip; tibiae brown, the tips dark brown; tarsi broken. Wings with a saturated yellow suffusion that deepens into brownish in the cells beyond the cord and less distinctly in the anal cells; all the veins are narrowly bordered by a conspicuous, light yellow margin; veins obscure yellow. Venation: *Sc* comparatively short, *Sc1* ending a short distance beyond the fork of *Rs*, *Sc2* almost exactly opposite this fork; *r* less than its length beyond the fork of *R2* + 3; cell 1st *M2* rather small, pentagonal; basal deflection of *Cu1* at or immediately beyond the fork of *M*.

Abdomen shiny honey-yellow with a conspicuous, brownish black subterminal ring, this latter including the extreme margin of tergite five, all of tergites six and seven, and more than the basal half of eight; of the sternites, only sternite six is distinctly included in this ring; extreme caudal margins of tergites three and four indistinctly darkened. Hypopygium obscure reddish.

*Hab.* Paraguay.

*Holotype*, ♂, San Bernardino (*Fiebrig*).

Type in the collection of the Vienna Museum.

*Ozodicera (Dihexaelonus) panamensis*, sp. n.

*Male*.—Length, 23.5 mm.; wing, 20 mm.; abdomen alone, 16.5 mm.

Generally similar to *O. (D.) fumipennis* Loew, of Brazil, differing as follows:



Size larger. Basal segments of the flagellum light brown, the pectinations dark brownish black. Mesonotal praescutum golden yellowish with four greyish brown stripes, the intermediate pair confluent in front, behind separated by a narrow brownish yellow line. Femora reddish brown, the tips scarcely, if at all darker; remainder of the legs reddish brown. Wings strongly yellowish grey, the base and the costal and subcostal cells more saturated; stigma yellowish brown; a scarcely apparent darker cloud at  $r - m$ ; veins yellowish brown. Abdomen bright brownish yellow, only the apical segments passing into reddish brown, segments eight and nine being of this latter colour; a broad brown lateral line on the tergites, beginning narrowly at the base of segment two, scarcely interrupted at the incisures; the smooth basal rings of the tergites slightly brighter in colour. Male hypopygium with the ninth tergite having a deep and narrow U-shaped median notch, the sublateral lobes thus formed being slender and with the apices subacute. Ninth sterno-pleurite produced caudad into a conspicuous flattened blade that is almost as wide as long, the caudal ventral angle running out into a small tooth. Outer pleural appendage appearing as flattened yellowish lobes, the tips of which are truncated. Inner pleural appendage heavily chitinised, the caudal margin with two conspicuous chitinised thorns.

*Hab.* Panama.

*Holotype*, ♂, Rio Chico, near the mouth of the Rio Porcona, Dept. of Panama, August 4, 1918 (*Axel Olsson*).

Type in the collection of the writer.

This is the first record of the genus *Ozodicera* in North America.